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PULP & PAPER

April 1985

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AIR/WATER QUALITY: Investigating alternate methods of compliance

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(Photo courtesy of Voith GmbH.)

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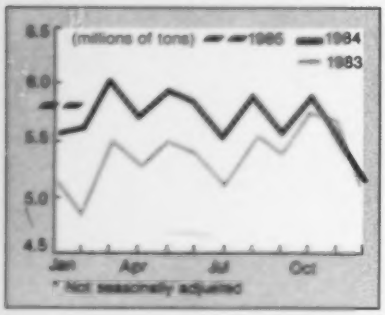
U.S. paper and board production



January production got the year off to a solid but undramatic start, rising 1.7% compared with January 1984, according to the American Paper Institute. In contrast, production jumped 6.8% in January 1984 over 1983 levels. Production for January 1985 totaled 5.6 million tons, up 1.7% from 1984, for an annual rate of 69.1 million tons, also up 1.7% year-to-year. Reflecting the flatter production trend, the two-month average of seasonally adjusted data for December and January was up just 1.0% over 1984.

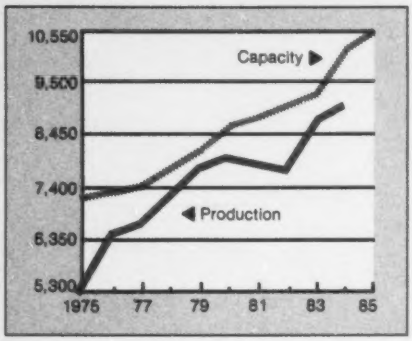
Among major grades, coated papers continued to lead the way, rising 11.6% on an annualized basis compared with January 1983, while uncoated free sheet climbed 2.1%. Uncoated groundwood was off 9.3% from last year, however, and packaging papers declined 4.0%. Bleached board also strengthened, rising 5.1%. Kraft paperboard was up 4.0%, but containerboard inventories jumped 15.6%, according to the Fibre Box Assn.

Canadian newsprint shipments totaled 739,000 metric tons in January, up 5.7% compared with 1984, said the Canadian Pulp & Paper Assn. Operating rates reached a strong 96% for the month, up from 93% in December. ■

	Latest month (000 short tons)		% change from year ago	Annualized year-to-date (000 short tons)	% change from year ago
PAPER & PAPERBOARD PRODUCTION[1]					
Newsprint	Jan.	469	2.2	5,622	2.0
Uncoated groundwood (s)	Jan.	122	−2.4	1,469	−9.3
Coated paper (s)	Jan.	556	11.6	6,672	9.5
Uncoated free sheet (s)	Jan.	794	7.7	9,533	2.1
Other printing/writing	Jan.	118	−3.3	1,410	−3.4
Total packaging and other paper (s)	Jan.	456	−5.2	5,466	−4.0
Tissue	Jan.	403	−1.7	4,837	−.8
Total paper	**Jan.**	**2,917**	**3.0**	**35,009**	**1.5**
Unbleached kraft paperboard	Jan.	1,408	4.1	16,894	4.1
Semichemical medium	Jan.	417	−3.2	4,998	−3.4
Bleached paperboard	Jan.	338	5.6	4,054	5.1
Recycled paperboard	Jan.	682	1.8	8,184	1.9
Total paperboard	**Jan.**	**2,844**	**2.8**	**34,130**	**1.8**
Total U.S. paper and paperboard output	**Jan.**	**5,762**	**2.8**	**69,139**	**1.7**
PULP, WASTEPAPER & FIBER[2]					
Total U.S. woodpulp production	Dec.	4,350	5.5	55,579	5.8
Market pulp production	Dec.	540	13.7	6,834	5.5
Wastepaper consumption at paper/board mills	Dec.	1,208	4.4	15,889	8.1
Pulpwood consumption (cords)	Dec.	6,875	2.0	87,646	2.6
CONVERTED PRODUCTS STATISTICS[3]					
Corrugated box shipments (billion ft²)	Jan.	23.137	5.7	23.127†	4.8
Containerboard inventories at U.S. box plants and mills	Jan. 1	2,822	15.6		
INTERNATIONAL TRADE[2]					
U.S. paper imports (including products)	Dec.	817	5.4	10,576	24.3
Imports of Canadian newsprint	Dec.	625	7.2	7,681†	12.2
U.S. paper exports (including products)	Dec.	301	−16.4	4,309	−4.3
Exports of unbleached kraft linerboard	Jan.	110	−28.6	1,322	−28.6
Exports of woodpulp	Dec.	311	−19.0	3,594	−1.4
Norscan pulp inventories[4]	Jan. 31	1,781	38.2		
Norscan pulp operating rates[4]	Jan.	89%	89%	96%	93%
CANADIAN STATISTICS[5] *(reported in metric tons)*					
Total newsprint shipments	Jan.	739	5.7	739†	5.7
Operating rates	Jan.	96%	93%	96%	93%
Inventories held by U.S. consumers	Jan. 31	1,408	14.3		
Other paper/board shipments	Jan.	250	6.8	250	6.8
Woodpulp shipments (export only)	Jan.	538	−5.9	538†	−5.9
Operating rates	Jan.	87%	91%	87%	91%

1. American Paper Institute. 2. API, Bureau of Census, American Pulpwood Assn. 3. Fiber Box Assn., Paperboard Packaging Council. 4. North American/Scandinavian paper-grade market pulp. 5. Canadian Pulp & Paper Assn. †Not annualized. ‡Not directly comparable to year ago because of coding change. (s) = shipments.

SUPPLY/DEMAND (000 tons)



FORECAST (000 tons)

	1983	1984	1985e
Production[1]	8,767	9,150	9,585
Capacity[1]	9,354	10,083	10,559
Utilization rate	93.7%	90.7%	90.8%
Imports[2]	236	495	450
Exports[2]	59	65	70
Apparent U.S. consumption	8,944	9,580	9,965
lb/capita	76.6	81.4	83.8
GNP ratio	5.82	5.85	5.88

1. American Paper Institute data.
2. Commerce Dept. data.
e = Estimate.

TOP U.S. PRODUCERS (000 tpy)

	Annual capacity	Market share (%)
1. Champion Intl.	922	8.7
2. Boise Cascade	800	7.6
3. International Paper	800	7.6
4. Great Northern	765	7.2
5. Union Camp	760	7.2
6. Hammermill Paper	649	6.1
7. Weyerhaeuser	565	5.4
8. Georgia-Pacific	545	5.2
9. Crown Zellerbach	443	4.2
10. Simpson Paper	355	3.4

Market share of top five companies:
38.3%

Market share of top ten companies:
62.5%

Total U.S. capacity (1985):
10.559 million short tons

UNCOATED PRINTING/WRITING FREE-SHEET PAPERS: Mixed year ahead as demand lags new supply

Grade structure: Uncoated free-sheet papers contain no more than 10% mechanical pulp with the balance being chemical woodpulp. Excluded are uncoated groundwood, cotton fiber, bristols, and thin papers. Major end uses include office papers (such as bond, forms bond, xerographic, tablet, and envelope), printing papers (offset, cover, and text) and miscellaneous (such as technical, papeterie, or colored school).

Production/capacity: Records were broken for the second year in a row in 1984, with production rising by 4.4% to a new high. However, at the same time, capacity had grown by 7.8% under the influence of new machines started up in 1983 by Champion International Corp. and in 1984 by Crown Zellerbach Corp. and Union Camp Corp. Also adding to capacity were a rebuild by Georgia-Pacific Corp. in 1984 and, even more significantly, the appearance of 529,000 tons of capacity in 1984 that mills were able to add through incremental expansions, over and above previously announced plans.

This sharp uptick in capacity drove the operating rate for the industry down by three points despite a 7.1% rise in apparent consumption. Capacity is expected to rise a further 4.7% in 1985, including rebuilds at International Paper Co.'s Mobile, Ala., mill, adding 350,000 tpy that is being converted from kraft papers and newsprint.

Outlook: With capacity rising by 4.7%, demand seems unlikely to increase enough to boost operating rates in 1985. Indeed, if the industry's trade balance does not improve somewhat, due to a weaker dollar or stronger demand overseas, operating rates this year will probably fall below 90%. This is despite the fact that demand should set a new record this year.

The industry enjoyed a strong year in 1984 in terms of shipments, and some end uses seem headed for another healthy performance. Many observers are expecting the book publishing segment, for example, to continue a comeback that began in 1983 from the depressed levels of the start of the decade. But it will be difficult for U.S. mills to match the kind of growth rates they are estimated to have recorded in 1984: 8.7% in forms bond, 8.6% in roll offset and 6.9% in white envelope, for example. On the other hand, copy paper shipments should do at least as well as the 3% growth rate of 1984.

Barring a miracle, none of this will mean any relief in pricing. Import volumes are thought likely to average a little lower than 1984 levels this year, with the decline showing up mostly in the second half, but overcapacity should keep prices depressed through the year.

Pricing: The industry pushed too hard for increases in 1983 and found itself unable to get through a mid-1984 hike. Prices slowly began to unravel immediately afterward and, in the case of 50-lb roll offset, January 1985 transaction levels were about 25% below year-earlier numbers. In the first quarter of 1985, mills were hoping the bottom had been reached, although the collapse of market pulp prices was a worrisome sign.

Two important grades are indicative of pricing trends. Prices shown are year-end, $/short ton, list quotes except where transaction prices are considerably below list, when transaction averages are shown.

Book paper, No. 3 offset, 45-lb sheets—1975, $484; 1976, $506; 1977, $548 to $555; 1978, $645; 1979, $711 to $717; 1980, $785 to $813; 1981, $878; 1982, $680; 1983, $840; 1984, $840. Forms bond, 15-lb rolls: 1975, $495 to $504; 1976, $520; 1977, $450 to $500; 1978, $538 to $550; 1979, $620; 1980, $643 to $697; 1981, $753; 1982, $640; 1983, $745; 1984, $680.

Markets: Estimated shipments by end uses are: bond, mimeograph, duplicating, xerographic—23%; forms bond—21%; offset printing—26%; envelope—11%; tablet—3%; other—16%. ■

(News section continued on page 23)

EXPANSION

Scott slates second coated machine at mill

Scott Paper Co. plans to install a second 215,000-tpy coated free-sheet machine at the Skowhegan, Maine, mill of its S.D. Warren Div., at a cost of $220 million. The new unit is scheduled for startup in the fourth quarter of 1986.

Chairman and CEO Philip E. Lippincott described the new machine as a "duplicate" of the existing unit which started up in 1982. The mill manufactures the lightweight Somerset line of web offset papers, generally in the 45- to 60-lb basis weight range. The new machine will make the same products.

The Somerset grades have generally been sold to the catalog, newspaper insert, book, specialty magazine, and direct mail businesses, the company said. The Scott announcement noted that "construction of the second machine will double lightweight capacity, making Scott a major factor in a market that we expect to produce excellent growth rates through this decade and beyond."

The construction and now the expansion of the Skowhegan mill was part of Scott's plan to shift premium coated grades to Muskegon, Mich., with medium-weight grades going to Mobile, Ala., and specialties to Westbrook, Maine.

Strong market predicted. Scott is known to be very bullish on the future of the coated free-sheet paper business as a whole, believing that operating rates will remain at 95% or above for the balance of the decade. Aside from enhancing its position in a big growth market, a further advantage of the second machine is that it will take an estimated 400 tpd out of Scott's market pulp sales, reducing exposure to a depressed pulp market.

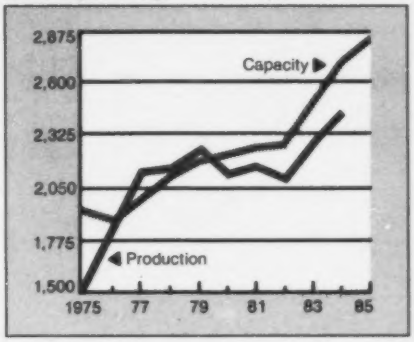
Other companies are also looking at new coated free-sheet capacity. Union Camp Corp.'s chairman and CEO, Peter J. McLaughlin, recently told an investment group in San Francisco, Calif., that his company continues to study entering the coated paper field. Options include adding a coated paper machine at its new Eastover, S.C., mill, adding an offline coater at its Franklin, Va., uncoated free-sheet mill, or an acquisition.

And Morgan Stanley & Co. analysts Thomas Clephane and Jeanne Carroll wrote recently that Champion International Corp. may announce installation of a coater at its Courtland, Ala., mill to increase capacity by 140,000 tpy. Startup of the coater would be in 1987, and the project would cost $50 to $75 million. The analysts are assuming that Champion will put off startup of a new coated groundwood machine until 1988. ■

Coated free-sheet expansion projects underway or under consideration. (Source: *P&P Project Report*).

Year	Company, mill	Capacity (000 tpy)	Project
1985	Consolidated Papers, Wisconsin Rapids, Wis.	25	Major rebuild of No. 12 machine.
1986	Scott Paper, S.D. Warren, Skowhegan, Maine	215	New machine
1987	Champion International, Courtland, Ala.	140	Considering new coater, analysts report
None	Midtec Paper, Kimberly Wis.	—	New machine under study
None	Union Camp, Franklin, Va., or Eastover, S.C.	—	Studying market entry via new off-machine coater at Franklin or new machine at Eastover
None	Westvaco, unspecified mill	150–300	Decision on new 150,000-tpy machine expected this year; a second such machine is also reportedly under study

Supply and demand for coated free sheet, 1975–85 (000 tons).



Canada to consider Domtar project aid

Canadian Prime Minister Brian Mulroney said he will consider government aid for Domtar Inc.'s proposed C$883-million modernization project at its Windsor, Que., mill, despite concern over possible U.S. reaction to such government assistance.

The prime minister's statement followed a decision in mid-February by Industry Minister Sinclair Stevens to reject a request from Domtar for a C$100-million grant for the project. Stevens' decision prompted Domtar to halt work on a major expansion of its white paper mill.

The government of Quebec, which owns 45% of Domtar, agreed to provide C$83 million toward the project, provided Domtar received the federal grant. Mulroney indicated, however, that the federal government wasn't prepared to make an outright C$100-million grant to the venture, but may provide an interest-free loan for a smaller amount.

In a statement explaining Ottawa's initial rejection of the grant, Stevens said the Canadian Pulp & Paper Assn. recently asked for reduced government intervention in the industry. He noted that producers feel that "federal support of this nature to a single company would have a negative effect on other companies through unfair competition and destabilization of the Canadian market." ■

SALES/EARNINGS

Canadian industry profits show further gains, but margins still low in West

Financial reports of Canadian pulp and paper companies showed continued improvement in the fourth quarter, although profit margins remained under pressure due to weakness in pulp and lumber prices. Results from a dozen firms show that aggregate sales were up 14% to C$3 billion, while earnings (excluding major nonrecurring items) more than tripled to C$106 million from a year earlier.

Full-year 1984 aggregate income of C$300.5 million reflected an even greater improvement from a year ago, despite the fact that profit margins of many western companies remained paper-thin and two major British Columbia producers still posted losses (although less than they had experienced in 1983). Sales of C$12.6 billion in 1984 were up 14.5% from 1983. Canadian companies continued to benefit from the weakness of the Canadian dollar in relation to the U.S. dollar but suffered from the strength of the Canadian dollar relative to most other currencies.

Lumber and pulp woes. MacMillan Bloedel Ltd. reported a nearly 600% increase in 1984 earnings compared with 1983's net, which was a very comfortable improvement over the C$93.3-million loss in 1982. Even so, MB (like other western producers) was adversely affected by industry-wide work stoppage in British Columbia and lower lumber prices, as well as by oversupply in the bleached softwood kraft pulp market, which caused prices to weaken in the second half. Increases in newsprint demand and prices were helpful.

British Columbia Forest Products Ltd., another western producer, reported that its 1984 sales surpassed C$1 billion for the first time and that fourth-quarter earnings were the best in three years. Strong demand and stable prices for newsprint and coated paper (from its U.S. Blandin Paper Co. subsidiary) helped to offset weaker markets for pulp and wood products.

Canfor Corp., another British Columbia company with heavy dependence on pulp and lumber, reported a fourth-quarter loss of C$12.2 million and a full-year loss of C$28.3 million. This followed losses of C$45 million in 1983 and C$85.7 million in 1982.

Eastern results stronger. Companies in eastern Canada on the whole showed a stronger profit performance for the fourth quarter and full year. Abitibi-Price Inc. reported 1984 sales of C$2.1 billion, up 29% from 1983, and earnings of C$72 million, up 90%. Robert Gimlin, chairman and CEO, said the earnings increase was a combination of the higher volume of newsprint sales, mills' cost-control programs, and better contributions from the fine paper and groundwood paper operations. The increased earnings also reflected the major benefits of capital projects that were largely brought online in 1983.

Domtar Inc. reported a 1984 net income of C$94 million, an increase of 134% over 1983, and said its fine paper business continues to be the main contributor to overall profits. Domtar added that better realizations were experienced for groundwood specialties and newsprint.

Great Lakes Forest Products Ltd. had 1984 sales of C$602 million—a record high. Softening markets late in the year produced some price erosion for both kraft pulp and fine papers. The newsprint market improved and permitted a modest price rise at mid-year. But the building products market was depressed for most of 1984. Net income was C$18 million; in 1983, the firm lost C$10 million.

Consolidated-Bathurst Inc. posted earnings of C$74 million, constituting a 114% rise over 1983; sales of C$1.6 billion were up 17%. The earnings increase was due to improvements in bleached pulp, groundwood specialties, and linerboard. Gains were partially offset by operating losses at the Bridgewater Div. in the U.K., higher depreciation, and interest expense.

Spectacular gains. The company with the most spectacular gains in 1984 is unquestionably Cascades Inc., which reports a tripling in both sales and earnings for the year. Important contributors to growth were the boxboard/kraft mills at Jonquière and East Angus, Que., acquired by Cascades in 1983. This year looks promising, a company spokesman said. Cascades is considering acquiring the Cartonneries Maurice Franck boxboard plant in France. ■

Canadian paper industry results.

Paper companies	Full year (C$000) Sales 1984	Change 1984/83	Earnings[1] 1984	Change 1984/83
Abitibi	$ 2,137,169	28.7%	$ 72,326[2]	90.3%
B.C. Forest Products	1,014,700	12.8	9,200	n.m.
Canfor	1,029,500	3.5	(28,300)	n.m.
Cascades Inc.	180,000	190.3	12,596	202.4
Consolidated-Bathurst	1,622,984	16.5	73,808[2]	113.7
Crestbrook Forest Ind.	137,944	9.1	981	n.m.
Crown Forest	740,800	1.9	(4,900)[2]	n.m.
Domtar	2,040,000	12.1	93,900[2]	133.6
Donohue	438,600	22.5	30,300	222.3
Fraser Inc.	529,500	21.5	3,480	−109.1
Great Lakes	601,976	21.6	17,779	n.m.
MacMillan Bloedel	2,130,000	4.4	19,300	−589.3
Total	**$12,983,173**	**14.4%**	**$300,470**	**918.6%**

1. Income after taxes, from continuing operations, excluding most significant nonrecurring items in both years.
2. **Abitibi:** 1984 net excludes C$162,000 net gain in 4th quarter, $2.19 million charge in year for sales of facilities. **Consolidated-Bathurst:** 1984 net excludes C$35.6 million writedown of Sulpetro investment, $18.5 million gain on sale of shares, $2.3 million gain on insurance claim. **Crown Forest:** 4th quarter and 1984 net exclude C$2.9 million gain in timber trade, downsized loss. **Domtar:** 4th quarter and 1984 net exclude loss for sold or closed facilities, tax loss.
( ) = loss. n.m. = Not meaningful.

Pulp and paper industry safety performance improves in U.S. South

The incidence of injury and illness in southern paper industry operations fell to 0.03448 last year from 1983's 0.04098 incidence rate, according to the Southern Pulp & Paper Safety Assn. (Table 1). The SP&PSA incidence rate is an expression of the total number of injuries and lost workdays in a mill, divided by the total hours worked by the employees.

For pulp and paper mills in the 2-million-employee-hour category, International Paper Co.'s mill in Natchez, Miss., had the lowest illness and injury rate in 1984, with a SP&PSA rate of zero. Buckeye Cellulose Corp.'s Memphis, Tenn., pulp and paper mill had the lowest rate for mills between 1 and 2 million employee hours. For mills that logged less than 1 million hours, Mead Paperboard's Stevenson, Ala., mill had the best safety record.

The association also keeps safety records for bag, box, and can converting, specialty products, plywood and sawmills, and woodlands operations.

Overall, the safety record of southern mills has improved during the past five years, with the 1984 index showing a decline after having been up somewhat in 1983. This trend has been attributed to many causes: dedication, persistence, and professionalism on the part of safety managers being among the most important. These managers are responsibile for keeping top management aware of unsafe conditions and encouraging employees to practice safe work habits.

Improved safety trends have also been attributed to the existence of an association such as SP&PSA, which provides a forum for exchanging ideas among safety personnel from mills throughout the U.S. South. The association also gives awards for mills with good safety records. Competition of this type between mills has proved to be a successful incentive toward improved safety records.

Another primary reason for improved safety trends in the past few years has been increased acceptance and recognition by mill management of the importance of safety. Management at many mills now realizes that safety is as much a key element in competitive mill operations as accounting, quality control, and keeping pace with technological developments. Focusing on safety and safety problems has resulted in net savings at year-end when compared with illness and injury costs, including lost time and workers' compensation, according to SP&PSA spokesmen.

PACIFIC REGION RESULTS. The Pacific Coast Assn. of Pulp & Paper Manufacturers' injury incidence rate showed an improvement over 1983 only in Washington State, with California, Oregon, and other western states recording poorer safety performances (Table 2).

Simpson Paper Co.'s Anderson, Calif., mill had the lowest incidence of injury/illness last year.

Of the eight Pacific Coast companies with multiple plant operations, ITT Rayonier Inc., Simpson Paper Co., Georgia-Pacific Corp., and Publishers Paper Co. showed improved safety performance. ■

TABLE 1: **Southern Pulp & Paper Safety Assn.'s injury and illness incidence report comparison, 1980-84.**

	1980	1981	1982	1983	1984
Pulp & paper mills (1)	.03865	.03151	.02696	.02746	.01974
Pulp & paper mills (2)	.12774	.09269	.06649	.06228	.05453
Pulp & paper mills (3)	.09310	.04617	.06201	.07610	.05019
Bag converting	.01409	.08196	.08301	.12532	.09090
Box & can converting	.05580	.08152	.06157	.08693	.02682
Specialty products	—	—	.03173	.01144	.01592
Woodlands (1)	.03805	.02978	.02352	.01845	.01822
Woodlands (2)	.09767	.03375	.03326	.01812	.01988
Plywood & sawmills	—	—	.07966	.03969	.04896
Industry overall	**.05826**	**.04787**	**.04183**	**.04098**	**.03448**
Fatalities	15	23	10	11	6
Approximate total number of employees				97,049	100,082

TABLE 2: **Pacific Coast Assn. of Pulp & Paper Manufacturers injury and illness report by state, 1984.**

State	No. of mills	Hours worked	Recordable cases	Incidence rate: Current period	Incidence rate: 1983 period
California	12	7,729,216	197	5.09	5.02
Washington	16	20,049,282	537	5.35	5.70
Other states*	4	3,653,381	113	6.18	5.41
Oregon	12	10,637,690	360	6.76	6.05
Total all mills	**44**	**42,069,569**	**1,207**	**5.73**	**5.84**

*Other states include Alaska, Montana, and Arizona.

"Safety Notes" is a new page in* Pulp & Paper *highlighting pulp and paper mill safety. Industry safety statistics will be covered on a quarterly basis, and during the interim months, news about successful safety programs at various mills will be featured. "Safety Notes" will include news about people, new ideas, successful incentive programs, and awards given by mills for safety achievements. Please send any information (including photos when applicable) about your mill that you feel would be appropriate to this section to: Susan Taylor, Departments Editor,* Pulp & Paper, *2700 Cumberland Parkway, Suite 530, Atlanta, Ga. 30339; or call (404) 432-3186.